

Department	Micro Laboratory	Document no	MICLAB – METHOD 029		
Title	Determination of Waterbath and Incubator Temperature Profiles				
Prepared by:		Date:		Supersedes:	
Checked by:		Date:		Date Issued:	
Approved by:		Date:		Review Date:	

1. SCOPE AND APPLICATION

This operator instruction is applicable to all QC laboratory personnel involved in performing incubator temperature profiles.

2. MATERIALS REQUIRED LIST

- 2.1 Nine calibrated thermometers.
- 2.2 Nine plastic specimen jars with a hole in the lid.
- 2.3 Paraffin Oil.
- 2.4 Incubator temperature profile record sheet.
- 2.5 Thermometer calibration record sheet - for each thermometer being used.

3. WORK INSTRUCTION

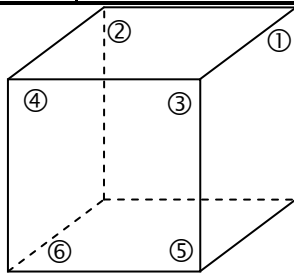
INCUBATORS & FRIDGES

- 3.1 Fill up 9 plastic specimen jars with Paraffin Oil.
- 3.2 Place jars in the incubator for which the profile is to be obtained. The position where each jar is to be placed is shown in the demonstration below.

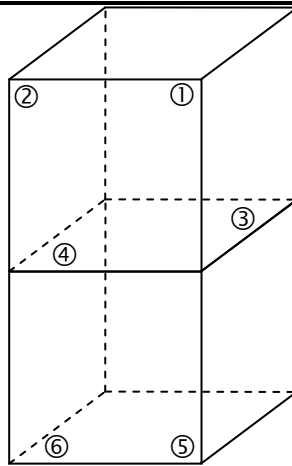
INCUBATOR/FRIDGE NUMBER: _____
Date Tested: _____

INCUBATOR/FRIDGE TEMPERATURE: _____
Type: _____

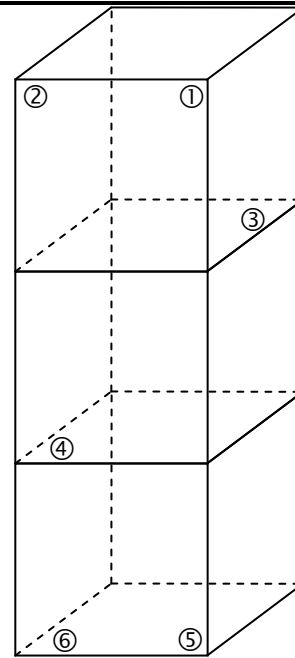
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Type A



Type B



Type C

Position	Thermometer /Probes Number	Thermometer /Probes Reading (°C)	Thermometer /Probes Correction Factor (°C)	Actual Temperature (°C)	Temperature Variation (°C)

3.3 Wait until the temperature of the Paraffin Oil in the specimen jars has stabilised and has reached the temperature of the incubator. This can take up to 12 hours.

4. WATERBATHS

- 4.1 Place 5 thermometers in the waterbath one in each corner then one in the centre.
- 4.2 Wait until the temperature of thermometers has stabilized and reached required temperature
- 4.3 Place thermometers in the waterbath and allow 5 minutes for the thermometer to stabilise before reading the temperature for each position.
- 4.4 Record the result in the first column labelled THERMOMETER READING.

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- 4.5 Record the correction factor for the thermometer being used in the second column labelled THERMOMETER CORRECTION for each thermometer being used. If no correction factor applies to the thermometer, record this as nil.
- 4.6 Calculate the Actual Temperature by subtracting the correction factor from the thermometer reading. Record this in the third column labelled ACTUAL TEMPERATURE.
- 4.7 Calculate the temperature variation by subtracting the Actual Temperature from the temperature of the incubator. Record this in the fourth column labelled TEMPERATURE VARIATION.
- 4.8 When all incubator profiles have been determined, submit the report to the microbiologist (or empowered representative) for final approval.
- 4.9 Incubator temperature profiles must be determined annually.

NOTE: Incubator with temperature profiles of <50°C can be performed by maintenance department using therma probes. Temperature profile charts will be generated by use of therma probes. Calculate any temperature variations by subtracting actual temperature from chart to required temperature.

5.0 SUMMARY OF CHANGES

Version #	Revision History
MICLAB – METHOD 029	New